

UNCLASSIFIED

BMDO RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 2000	
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603869C MEADS - DEM/VAL (PD-V)				PROJECT 1262	
<i>COST (In Thousands)</i>	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
1262 Medium Extended Air Defense System (MEADS)	11675	48594	63175	73645	131953	268558	274239	Continuing	TBD

A. Mission Description and Budget Item Justification

The Medium Extended Air Defense System (MEADS) will defend the maneuver force and other critical forward-deployed assets against short and medium range Theater Ballistic Missiles (TBMs), cruise missiles, and other air-breathing threats throughout all phases of tactical operations. MEADS will operate both in an enclave with upper-tier systems in areas of debarkation and assembly, and provide continuous coverage alone or with Forward Area Air Defense systems in the division area of the battlefield during movement to contact and decisive operations. MEADS will be interoperable with other airborne and ground-based sensors and utilize a netted and distributed architecture and modularly-configurable battle elements to provide a robust, 360-degree defense against the full spectrum of TBMs, cruise-missiles, unmanned-aerial-vehicles, tactical air to surface missiles, rotary-wing, and fixed-wing threats. MEADS will offer a significant improvement in tactical mobility and strategic deployability over comparable missile systems.

The MEADS program has been restructured to leverage the interceptor from the PATRIOT Advanced Capability – 3 (PAC-3) program and to extend the Program Definition / Validation (PD/V) phase with a three-year Risk Reduction Effort (RRE) that focuses on developing the critical technologies required for maneuver force protection and overall risk reduction.

There remains a critical void in maneuver force defense against short and medium range TBMs, cruise missiles, and low-to-medium altitude advanced air-breathing threats. This program will meet this challenge by integrating the PAC-3 missile and developing the critical technologies required for maneuver force protection, including development of a prototype lightweight launcher, 360-degree radar, and tactical operation center. Concepts will be validated through proof-of-principle testing capitalizing on the already programmed Air-Directed Surface-to-Air Missile (ADSAM) demo efforts. The PAC-3 missile will be the baseline interceptor considered for the effort. Sensor and battle management software technology from both U.S. and international programs will be examined to enhance and augment organic-equipment functions, reducing development cost and risk. Improvements will be balanced against costs and the projected threat to develop a U.S. and allied capability to counter the maneuver force threat. This approach emphasizes prototyping of system-specific and surrogate hardware in key areas of Battle Management/Command, Control, Communications, Computers, and Intelligence (BM/C4I), fire control radar, and lightweight launcher to satisfy mobility, strategic deployability and interoperability requirements. Cost As an Independent Variable (CAIV) analysis will be applied to the currently defined requirements. The Ballistic Missile Defense Organization (BMDO) is responsible for overall program management and direction. The US Army, Program Executive Officer for Air and Missile Defense and the MEADS National Product Office execute the program for BMDO.

FY 1999 Accomplishments:

Project 1262
Page 2 of 5 Pages
Exhibit R-2 (PE 0603869C)

UNCLASSIFIED

		DATE
		February 2000
BUDGET ACTIVITY		PE NUMBER AND TITLE
4 - Demonstration and Validation		0603869C MEADS - DEM/VAL (PD-V)
•	9915	Transferred to Joint Land Attack Elevated Network Sensor (JLENS) Program Office for ADSAM to demonstrate advanced operational and weapons employment concepts.
•	1760	MEADS/ADSAM Studies.
Total	11675	
FY 2000 Planned Program:		
•	38580	U.S. contribution to the international program office operational budget for the MEADS Risk Reduction Effort contract for initial development of digital end-to-end simulation and initial development of prototype launcher, fire control, BMC4I hardware and associated software.
•	4156	Funding for government agencies and support contracts to provide technical analysis and tools in speciality areas of lethality, BMC4I, System simulations, FAAD/MEADS integration as well as support of conducting independent evaluations of contractor trades and analysis.
•	5858	Funding for MEADS program management, support, and salaries for both the national and international program offices. Includes U.S. support contractors and other efforts tied to national support of executing the replanned program.
Total	48594	
FY 2001 Planned Program:		
•	50980	Continue U.S. contribution to the international program office operational budget for the MEADS Risk Reduction Effort contract for continued development of digital end-to-end simulation, continued development of prototype launcher, fire control, BMC4I hardware and associated software, and test planning.
•	5837	Continue funding for government agencies and support contracts to provide technical analysis and tools in speciality areas of lethality, BMC4I, System simulations, FAAD/MEADS integration as well as support of conducting independent evaluations of contractor trades and analysis.
•	6358	Funding for MEADS program management, support, and salaries for both the national and international program offices. Includes U.S. support contractors and other efforts tied to national support of executing the replanned program.
Total	63175	

UNCLASSIFIED

BMDO RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

DATE

February 2000

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

4 - Demonstration and Validation**0603869C MEADS - DEM/VAL (PD-V)****1262**

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
B. Program Change Summary			
Previous President's Budget (<u>FY 2000 PB</u>)	9915	48597	63568
Appropriated Value		48597	
Adjustments to Appropriated Value			
a. Congressional General Reductions		-140	
b. SBIR / STTR			
c. Omnibus or Other Above Threshold Reductions			
d. Below Threshold Reprogramming	-215	137	
e. Rescissions			
Adjustments to Budget Years Since <u>FY 2000 PB</u>	+1975		-393
Current Budget Submit (<u>FY 2001 BES</u>)	11675	48594	63175

Change Summary Explanation:

Funding: FY1999 (-215) Below Threshold Reprogramming

Funding: FY1999 (+1915) provided to ADSAM consistent with FY2000 Appropriation language

C. Other Program Funding Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Compl</u>	Total <u>Cost</u>
N/A									

D. Acquisition Strategy:

The MEADS acquisition strategy included competition among two transatlantic industrial teams in the PD-V phase. The international program office awarded contracts in October 1996 to conduct the international industrial teaming and development. Deliverables included a total system concept based upon the International Technical Requirements Document, engineering design trades, and system models and simulations. During the PD-V phase, the two international entities prepared proposals and competed for the Design and Development and Production phases. As the Department and partner nations restructured the program, this phase concluded with the selection of a single contractor team to conduct the RRE. In this phase, technology from Germany, Italy and the United States, including the PAC-3 missile will be leveraged to define the most cost-effective solution to meet the MEADS operational requirements. The MEADS Product Office is also pursuing integration of MEADS BMC4I with the Project Manager, Air Defense Command and Control Systems (ADCCS) to take advantage of other Army developments that can be incorporated into the MEADS program.

E. Schedule Profile	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Complete PD-V Source Selection	3 rd Qtr						
Transition effort 6-month contract signed		1 st Qtr					
Three-year risk reduction effort contract signed		3 rd Qtr					

Project 1262

Page 4 of 5 Pages

Exhibit R-2 (PE 0603869C)

UNCLASSIFIED

							DATE	February 2000
BUDGET ACTIVITY				PE NUMBER AND TITLE				
4 - Demonstration and Validation				0603869C MEADS - DEM/VAL (PD-V)				
Program review			1 st Qtr	1 st Qtr				
Component testing completed					1 st Qtr			
Demonstrate MEADS functionality					2 nd Qtr			
Design and development phase contract award								

UNCLASSIFIED

BMDO RDT&E COST ANALYSIS (R-3)

DATE

February 2000

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

4 - Demonstration and Validation**0603869C MEADS - DEM/VAL (PD-V)****1262**

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. International Teaming	FFP	LM/H&R Teams	9605						9605	
b. Proj Def-Val (PD-V)	FFP	NAMEADSMA	101672						101672	
c. Risk Reduction (RRE)	TBD	NAMEADSMA		38580	May 00	50980		TBD	TBD	
Subtotal Product Development:			111277	38580		50980		TBD	TBD	

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	4001	Target Value of Contract
a. U.S. Anl of Alternatives	LOE/MIPR	MEADS Prod Ofc	2298						2298	
b. U.S. Contracts	LOE	MEADS Prod Ofc	3439						3439	
c. U.S. Other Govt Agcy	MIPR	MEADS Prod Ofc	5282	4156		5837		TBD	TBD	
Subtotal Support Costs:			11019	4156		5837		TBD	TBD	

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Redstone Tech Test Ctr	MIPR	Huntsville, AL	253						253	
b. ADSAM		SMDC	9915						9915	
Subtotal Test and Evaluation:			10168						10168	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Internal Operating	In-House	MEADS Prod Ofc/NAMEADSMA	9507	5858		6358		TBD	TBD	
Subtotal Management Services:			9507	5858		6358		TBD	TBD	

Project Total Cost:			141971	48594		63175		TBD	TBD	
---------------------	--	--	--------	-------	--	-------	--	-----	-----	--

Remarks:

Project 1262

Page 5 of 5 Pages

Exhibit R-3 (PE 0603869C)

UNCLASSIFIED